Strategy Research Project

THE EFFICACY OF EXECUTIVE AGENCY: DOES IT WORK?

BY

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USAWC STRATEGY RESEARCH PROJECT

THE EFFICACY OF EXECUTIVE AGENCY: DOES IT WORK?

by

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ABSTRACT

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Department of Defense (DoD) uses the executive agent designation to manage programs that reach across multiple armed services. This Strategy Research Project (SRP) examines critical Executive Agency (EA) issues, identifying the benefits and disadvantages of using EA as a DoD management tool. It analyzes several case studies to assess the efficacy of the EA management approach and to determine its ability to gain economies and efficiencies, while ensuring effectiveness, for activities that have multi-service applications. Are EAs useful? No simple answer applies to all possible EA situations. To determine when an EA is the appropriate approach, a detailed analysis using critical thinking and a system of systems approach must be conducted – including the Polis and Rational-Analytical decision making models. The key to successful implementation of EA is designing it with the appropriate scope and authority while continually monitoring and adjusting it throughout the execution.

THE EFFICACY OF EXECUTIVE AGENCY: DOES IT WORK?

> The Department of Defense is a large and complex social system with many interrelated parts. As changes are made to one part of the system, many other parts are affected in a cascading and often unpredictable manner. Thus, organizational decisions are fraught with second and third order effects that result in unintended consequences. Fire and forget approaches are rarely sufficient and are sometimes downright harmful.[1]
>
> —George E. Reed

A wide variety of EAs exercise control over a broad range of DoD organizations, processes, and acquisition programs. At a minimum, a well-rounded DoD professional must understand EA and its institutional role. Consider the following examples of EAs that currently support our national security:

- DoD Executive Agent for Bulk Petroleum[2]
- DoD Executive Agent for Joint Urban Operations[3]
- DoD Executive Agent for Medical Materiel[4]
- DoD Executive Agent for Medium- and High-Altitude Unmanned Aircraft Systems[5]
- DoD Executive Agent and Single Manager for Military Ground-Based Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (CREW) Technology[6]
- DoD Executive Agent for Space[7]
- DoD Executive Agent for Subsistence[8]
- DoD Executive Agent for the United States Central Command (USCENTCOM) Rest and Recuperation (R&R) Leave Program[9]

This SRP begins with a general description of EA and the process for determining when EA should be applied. It cites political factors that influence the Secretary of Defense's (or his representatives') decision to create an EA for a particular multi-service activity. Then two case studies are analyzed. The first case study describes the Bulk Petroleum EA; the second reviews the proposal to create an EA for high- and medium-altitude Unmanned Aircraft Systems (UAS).[10] The paper concludes with a summary of when to apply EA and the efficacy of the Bulk Petroleum and UAS EA.

What is Executive Agency?

The EA concept has existed for hundreds of years. COL Dan Jennings reports that EAs were used in the American Revolution when the Continental Army supported the Marines and Navy.[11] Since then, the EA concept has continually matured. In 1997, the U.S. Air Force (USAF) reported it managed 267 separate EA areas. The U.S. Army attempted to enumerate their EA responsibilities, but was unsuccessful in arriving at an exact number.[12] At that time there was no standard for defining EA roles, delineating EA responsibilities, or resourcing an EA.

On 3 September 2002, Deputy Secretary of Defense Paul Wolfowitz signed DoD Directive 5101.1, which clarified the concept and provided new guidance on designating and implementing EAs.[13] A DoD Executive Agent is "the head of a DoD Component to whom the Secretary of Defense [SECDEF] . . . has assigned specific responsibilities, functions and authorities to provide defined levels of support for operational missions, or administrative or other designated activities that involve two or more of the DoD Components."[14] Furthermore, DoD Directive 5101.1 designated the Office of the

Secretary of Defense Principal Staff Assistants to oversee all DoD EAs and advise the SECDEF on their performance and on-going relevance.

Appointed by means of a DoD Directive, an Executive Agent is responsible for reducing redundancy within DoD. EAs use their authority as the lead DoD component to manage an activity for the entire Department. EAs also serve as a catalyst for jointness. The DoD directive for each EA specifies the EA's authority and responsibilities to perform its management tasks. In addition, the EA directive describes the roles and key functions of other DoD agencies in relation to the EA. EAs are thus created to streamline DoD bureaucracy by eliminating redundancy across services, by improving the management process, and by increasing efficiency while effectively accomplishing the mission.

EAs can reduce costs by eliminating redundant staffs and consolidating requirements and corresponding requisitions and acquisitions. EA management oversight inherently increases interoperability through a combination of common supplies and materiel acquisitions and through the enforcement of DoD-wide standards. Despite the benefits associated with consolidating management for certain functional areas and classes of supplies, some unanticipated consequences can offset EA advantages. Consequently, EA activity must be continually monitored and reassessed to determine when economies and efficiencies gained through consolidation have been negated by losses in effectiveness. Such adverse consequences can arise from the lack of flexibility and responsiveness inherent with more centralized management.

When Should EA be Used?

> For every complex problem there is a solution that is simple, neat – and wrong. This maxim has been attributed at various times to Mark Twain, H.L. Mancken and Peter Drucker as a wake-up call to managers who mistakenly think that making a change in just one part of a complex problem will cure the ails of an entire system. Everyday management thinking too often looks for straightforward cause and effect relationships in problem solving that ignores the effect on, and feedback from, the entire system.[15]

At a minimum, the two very rich disciplines of systems thinking and critical thinking can be leveraged to determine when an EA should be used. Peter Senge's *The Fifth Discipline* provides a robust discussion on how to employ systems thinking for "seeing interrelationships rather than linear cause-effect chains, and seeing processes of change rather than snapshots."[16] Using this holistic approach, "every influence is both cause and effect. Nothing is ever influenced in just one direction."[17] This leads to the term "dynamic complexity . . . where cause and effect are subtle, and where the effects over time of interventions are not obvious."[18] A systems-thinking approach lays the groundwork for deciding when to use EA by providing an understanding of the complex environment within which the EA is required to function. Given this comprehensive and in-depth approach, critical thinking also aids in the determination of when it is appropriate to use an EA.

The *Miniature Guide to Critical Thinking* presents a problem-solving approach that applies to this analysis.[19] It provides a framework for answering the basic question: "When should EA be used?"

1. Identify the goal and purpose of the EA.
2. State the overarching problem and its components clearly.
3. Study the problem to distinguish areas that can potentially be solved.

4. Figure out the information you need and seek it out.
5. Analyze the information and draw reasonable inferences.
6. Ascertain options, including short term and long term actions, i.e., do not create an EA, create an EA with extensive authority and responsibilities, create an EA with moderate authority and responsibilities, create an EA with responsibilities for standardization only and leave the authority to enforce those standards with the services or the SECDEF, or some combination, etc.
7. Evaluate the options and determine advantages and disadvantages.
8. Adopt a strategic approach to identify the most favorable option for DoD and follow through with implementation.
9. While implementing the option, monitor the implications and revise the strategy, analysis, or problem statement (or all three) if required.

The first step is to define the goal and purpose of the specific management area and determine the scope of related management tasks. The analysis should include a detailed examination of the EA candidate program or activity currently being performed by each service. The examination of the services' management approaches – to include their related organizations, processes, resource levels, challenges, etc. – should inform and iteratively improve the definition and scoping of the EA. It will also lead to a better understanding of the potential costs and benefits of implementing an EA approach.

The overarching problem and its components that an EA could potentially solve can be categorized into a set of critical factors: service requirements, manning levels, interoperability standards, budgets, and other relevant areas. These factors can then

be used to examine more closely service-associated activities. Thus, analysis must consider existing or potential areas of commonality as well as service-unique requirements or possible cultural or institutional impediments. Similarly, the remaining seven steps of the problem-solving approach can also be applied to answer: "When should EA be used?"

After studying the components of the problem, areas can be identified with potential commonality. For certain candidate programs or activities, commonality in requirements can be somewhat quantified. Identifying the areas of commonality and possible redundancies can sometimes require an enormous information-gathering effort to support informed and sound judgments. For example, Figure 1 depicts a candidate program where common "requirements" far outweigh individual service requirements. Conversely, Figure 2 depicts a program in which there are substantially fewer overlapping requirements.

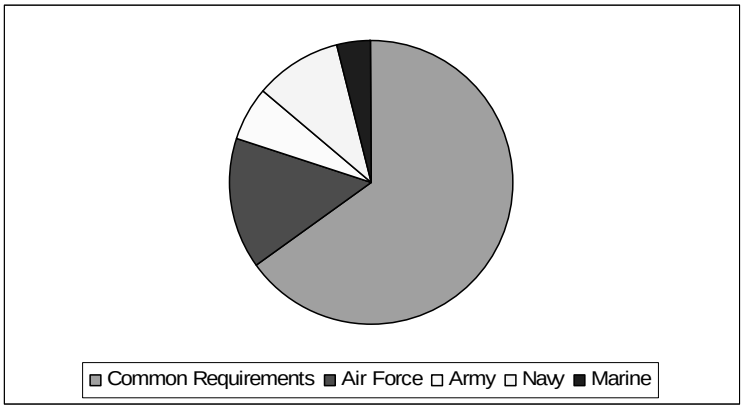

Figure 1: High Commonality.

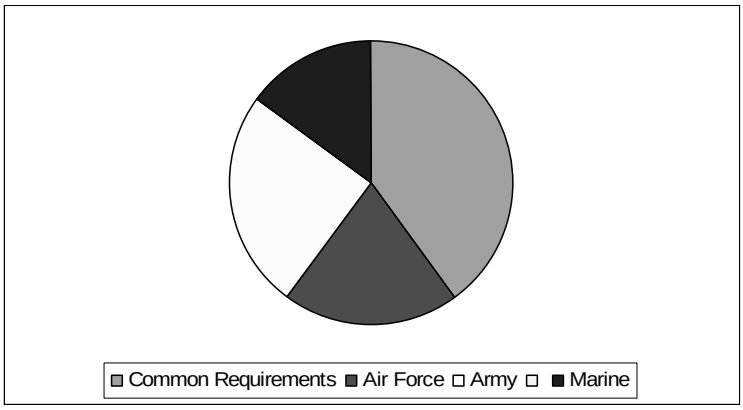

Figure 2: Low Commonality.

However, commonality in requirements is only one of many factors that need to be considered. Even if creating an EA seems to be the optimal management approach, disadvantages may surface. For acquisition programs, creating uniform acquisition requirements to address every service's operational needs for a single systems platform usually leads to one or more services acquiring certain capabilities that are not needed. Thus, in the effort to reduce redundancy, DoD may inadvertently provide superfluous capabilities for one or more services. One example of this involves bulk petroleum EA:

> The Army and Marines require petroleum pumps mounted on heavy-duty trailers capable of cross-country towing. The Air Force and the Navy have no such requirement. Under DoDD 5101.8, if Defense Energy Support Center (DESC) [bulk petroleum EA] establishes the standard to Army and Marine requirement the Air Force and Navy would be required to purchase unnecessary capabilities. If you compound this problem across the force, each Service would be required to purchase unneeded capabilities in the name of standardization. Furthermore, some capabilities that are required infrequently by a small subset are not provided because of EAs centralized decision-making.[20]

Identifying and measuring commonality is also problematic. A simple tally of the requirements does not constitute a valid measurement. Each requirement must be examined according to its overall importance to meeting the service-specific operational capability, with consideration to both the criticality of the contribution and its expected

frequency. Once the commonality of requirements is examined, weighed, and compared, an appropriate and informed determination of the scope and degree of commonality can be made.

Even after careful analysis, apparently acceptable tradeoffs in service-unique capabilities can escalate in their consequence for that service. Conversely, adopting and accommodating single service high–risk technology capabilities for all services can inadvertently drive up the cost of the program for the other services to unacceptable levels. Systems analysis of the functional area and an examination of potential consequences, including reinforcing and feedback effects, can produce feasible options. The analysis should also consider short-term and long-term consequences and account for internal and external influences. DoD will then designate an EA when the potential economies and efficiencies gained through consolidation and centralized management outweigh service-specific considerations. Based on systems thinking and critical thinking from the DoD perspective, the designation of a DoD Executive Agent is justified and will improve management effectiveness and efficiency.

Making the decision to create an EA is only the beginning of better management. The far more challenging feat is implementing the EA, which can trigger an expansive organizational change throughout DoD:

> Each of the services has an enormous acquisition infrastructure that resists change, especially when it involves losing some amount of acquisition authority. The services also have large investments in their requirements development process, which often has failed in the deployment of joint tools and technologies. It usually falls victim to requirements creep. . . Joint programs in the greater Defense Department with an individual service as executive agent (EA) tend to add requirements based on individual service needs or environments – the proverbial horse becomes a camel.[21]

John Kotter's eight-stage process of leading major change is a widely acclaimed method for implementing successful organizational change:[22]

1. Establishing A Sense Of Urgency
2. Creating The Guiding Coalition
3. Developing A Vision And Strategy
4. Communicating The Change Vision
5. Empowering Broad-Based Action
6. Generating Short-Term Wins
7. Consolidating Gains And Producing More Change
8. Anchoring New Approaches In The Culture

Kotter's process is only one method; a second is advocated by Lawler and Worley in *Built to Change: How to Achieve Sustained Organization Effectiveness.* And there are numerous others. These methods provide a sound framework for implementing an EA. No matter which method is selected, much time and resources are required to monitor the implementation and to ensure its success. The effective implementation and continual re-evaluation and adjustments of its roles and functions is just as important as the initial decision to create an EA.

Rational-Analytic Model Verses Polis Model

Establishing an EA is a major DoD policy decision with substantial political overtones. "The hallmark of contemporary policy analysis is its focus on rational methods of decision making . . . The main variants of this approach are cost-benefit analysis, risk-benefit analysis, and decision analysis."[23] On the surface, it appears the EA debate is strictly a rational-analytic issue. However, a close examination of the political aspects of the decision-making process provides a more complete picture.

Table 1 provides a summarized side-by-side comparison of the rational-analytic model and the polis model developed by Deborah Stone.[24]

	Rational-Analytic Model	Polis Model
1	State explicit goals.	State goals ambiguously and redefine them as the political situation changes.
2	Adhere to the goals throughout the problem duration.	Do not consider undesirable alternatives by ignoring them.
3	Consider as many alternatives as possible.	Frame your preferred alternative as the only feasible option.
4	Develop distinct courses of action (COA).	Focus on positive aspects of your COA.
5	Evaluate the cost and benefits of each COA.	Blend COAs and do not appear to make a clear decision that would trigger strong opposition.
6	Select COA that maximizes total welfare defined by your goals.	Only highlight cost and benefits that make your preferred case look best.
7		Choose COA that hurts powerful constituents [stakeholders] the least, but portray your decision as creating maximum social good for a broad public/stakeholders.

Table 1. Decision Models.

Stone believes the advocates of rational decision models actually set out to discount or marginalize political influences which, in turn, can lead to less-than-optimum courses of action.[25] The rational decision models assume the decision-maker clearly understands and communicates the problem and the goals, while identifying and assessing the major influencing factors. The rational-analytical model also assumes that the problem framework remains relatively constant throughout the analysis and into policy implementation. Rarely are these assumptions valid in matters dealing with complex policy issues. Conversely, the Polis model assumes the issue and associated environmental influences are in a constant state of flux and are driven primarily by organizational and self interests. The stakeholders and their positions are in a constant

state of flux based upon dynamic political exigencies and compromises – not concrete program factors. By the nature of their largely political context, the stakeholders within the Polis model pursue political agendas and advocate related positions on the issues, rather than agendas associated with resource or program factors.

Because of the complexity of many of these strategic issues, there will always be conflicting rationale and associated supporting data. Within the Polis model, the supporting data for almost any initiative can be made to sound compelling by advocates pursuing their own interests. Consequently, the fate of an initiative is determined most by the political context – not the comparative objective supporting data. Nonetheless, Congress and other federal bureaucracies direct study after study to collect objective data so they can make an informed rational decision. But because of the nature of our democratic processes, the data is always framed within the political context described by the Polis model.

During the determination and implementation process of an EA, the Polis model can be applied on several levels. First, the armed services serve the U.S. people and thus the U.S. political system, accounted for in the Polis model. Within each service, various organizations – such as budget offices, doctrine and requirements writers, and acquisition professionals – are pursuing their own goals and fulfilling their responsibilities. Again, the Polis model applies: there are multiple groups with differing views of an EA determination and they actively pursue and defend their organizational goals and responsibilities. Additionally, the chief of each service works within the Polis model and also juggles multiple agendas: equipping and training the services, supporting the executive branch and Congress, operating under budgetary constraints,

and continually competing with the other services for funds. The services seek resources according to their rationally justified capability requirements, but do so within our political system as reflected in the Polis model.

Some members of Congress have vested interests in EA determination. Some Congressional members serve on the Senate or House Armed Services Committees which oversee the services to ensure the U.S. maintains the world's preeminent military force. Other members of Congress have constituents whose livelihoods are tied to EA decisions. Intuitively, we the American people prefer the Rational-Analytical model because it is clear, concise and – above all – logical. However, in reality the determination of EA involves both models, which accounts for decision-making in our democratic society. Understanding the political context of EA determination helps us understand the analysis of related EA case studies.

This paper now examines two case studies: one that justifies the establishment of an EA and one in which service-specific requirements outweigh the benefits of consolidated EA management. The first case study examines the EA for Bulk Petroleum, for which creating an EA was clearly justified. The second case study, the EA for high- and medium-altitude UAS, provides an example in which service-specific requirements obviate the benefits of consolidated EA management.

DoD Executive Agent for Bulk Petroleum

In 2004, DoD Directive 5101.8 for Bulk Petroleum[26] designated Defense Logistics Agency (DLA) as the Bulk Petroleum EA, then delegated the EA role to DESC. This directive culminated an effort that began when the need for a Bulk Petroleum EA was identified during the 1999 Chairman of the Joint Chiefs of Staff (sponsored by the J4)

Focused Logistics Warfare (FLOW) Exercise. The Petroleum EA was assigned responsibility for executing supply chain management from the source of supply to the point of customer acceptance for all DoD components worldwide, including the Combatant Commanders (CCDRs), in peacetime, wartime, and contingencies other than war. The petroleum EA's core task was and still is "improving efficiency"[27] throughout the supply chain.

Indeed, significant efficiency was gained when the petroleum EA streamlined fuel filters. DoD had over 30 different types of fuel filters used by a multitude of vehicles from aircraft to trucks.[28] Today DoD has six standard fuel filters that will eventually equip all vehicles: the other filters will cease being supplied through normal life cycle replacement.[29] The reduction in filter types reduces purchasing requirements, streamlines distribution, and avoids stocking extraneous types across DoD. The EA capitalized on the functional commonality of fuel filters and produced these economies.

Presently, DESC and the services are examining fuel bladders that serve a common purpose across DoD. The current models were not designed to withstand long-term use in a desert climate. As a result, the services are experiencing leaks and ruptures which create potential environmental hazards and otherwise hamper operations. DESC is leading the effort, in conjunction with the services, to design and test new fuel bladders. Furthermore, the EA for Bulk Petroleum streamlines and gains economies of scale that aids the CCDRs who rely on a single agency to secure bulk petroleum. This circumvents the need for separate agreements between all the services to procure bulk petroleum from each other and/or host nations.

In his 2005 research paper titled *Petroleum Executive Agency – A Forcing Function for Jointness*, Jennings supports the creation of the Petroleum EA and asserts that this EA contributes significantly to jointness.[30] Specifically, jointness is promoted through the DoD Class III Component Steering Group (CSG), which brings together representatives from the Joint Chiefs of Staff, DESC, the CCDR's Joint Petroleum Offices (JPO), and the services[31] to identify issues and recommend resolutions to the EA. However, Jennings then identifies three areas, in compliance with DoD Directive 5101.8, that create inconsistencies and thus pose a challenge to implementing an optimum Bulk Petroleum EA within DoD.

First, the directive delegated EA responsibilities to DESC, while DLA retains approval authority for all actions. Putting DESC in the lead without authority – the non-voting chair[32] – sends the signal that designation of an EA was business as usual.[33] No clear, concise guidance establishes DESC as the sole authority and to be held accountable for the EA's performance. This is evident in paragraph 4.2 of the directive: "Nothing in this Directive alters the responsibilities of the DoD Components to execute the responsibilities defined in DoD Directive 4140.25 and DoD Directive 7000.14-R."[34] In other words, the regulations in existence before the EA are still in effect – which simply means that designating an EA establishes an additional level of oversight with more regulations and duties that add more complexity to the process, but not clarity. Moreover, "the CSG supervises subordinate IPTs [integrated process team] that address functional issues such as – facilities, training, and quality"[35] – with DESC participating and managing the process rather then leading it. This creates a Polis process in which competing perspectives are brought together to determine the EA's

priorities, making it nearly impossible to achieve consensus for dramatic policy changes or for genuine reforms in sensitive areas. William MacLaren, Director of the Executive Agent Office at DESC, describes it as "lacking … the vigilance to take on unpopular areas," such as standard fuel nozzles and consistent training across the services.

Jennings asserts that DoD needs a centralized bulk petroleum information management (IM) system.[36] This system must function across DoD, but it must also connect with other U.S. government agencies; with allied, coalition, and host-nation countries; and with commercial activities.[37] The petroleum EA has no authority over these interested parties, nor should it. However, the DoD directive requires that the Petroleum EA build and establish a standardized IM system – a challenging task for an organization with limited influence and no authority over many of the major stakeholders. In August 2007, the Bulk Petroleum EA began to create the IM system when Maynard Sanders,[38] Chairman of the Component Steering Group, signed the *Bulk Petroleum Executive Agent Requirements Generation/Information Management (RG/IM) Program Charter*. "The purpose of the RG/IM program is to facilitate capturing and clarifying IM requirements in support of inter-service interoperability across the bulk fuels supply chain."[39] This charter initiates the process to establish and standardize IM for Bulk Fuel. A related question would be why it took three years to undertake such a key responsibility of the Bulk Petroleum EA?[40]

Jennings then examines the suitability of selecting DESC as the DoD petroleum EA. He asserts DLA is best suited for the role and thus should have retained responsibility for the EA – not delegate it to DESC. He also recommends increasing personnel in the Joint Petroleum Offices at the Combatant Commands and directing US

Joint Forces Command to conduct Joint bulk petroleum training. The EA could carry out these requirements if sufficiently empowered and given the authority in an updated DoD Directive 5101.8 for Bulk Petroleum.

"If the EA for Bulk Petroleum is going to be a driver of change, it is important to revise the base directives and related regulations to eliminate barriers and obstacles and fully empower the EA."[41] The EA for Bulk Petroleum has indeed improved DoD acquisition and management of a vital resource. However, as a DoD management tool, the Bulk Petroleum EA needs further refinement to attain its full potential for efficiency and jointness.

Knott's article, "Defense Logistics Agency Designated Executive Agent for Critical Supply Chains," describes a DoD decision to empower one agency as a supply chain manager, in accordance with DoD's adaptation of a commercial business practice.[42] She reports that DLA has been designated as the EA for not only bulk petroleum but also for medical materiel and subsistence. Knott's article raises another issue concerning the feasibility of tasking a single agency for multiple EAs. Although an analysis focusing on the candidate's functional area may justify the designation of an EA that agency's duties in other functional areas may conflict or interfere with their EA oversight and consolidated management. Thus, a total systems analysis of the roles and responsibilities associated with EA consolidated management and oversight must be juxtaposed against responsibilities associated with other management functions already being performed by the candidate agency.

In summary, the EA for Bulk Petroleum is improving efficiencies across DoD through standardizing fuel filters and fuel bladders, building an enabling information

system, and streamlining the procurement of bulk petroleum for the CCDRs. Further improvements could be harnessed if more authority were allocated to the Bulk Petroleum EA. This is just one example of a successful EA, for another the reader is referred to the DoD Executive Agent for Medical Materiel and Subsistence.[43]

The Executive Agent Debate for Unmanned Aircraft Systems (UAS)

Congressional concern over UAS management began as early as 1986. The House and Senate Committees of the Armed Services directed DoD to develop a master plan that would address:[44]

> (1) Harmonization of service requirements, (2) Utilization of commonality, to the maximum extent possible, and (3) Trade-offs between manned and unmanned vehicles in order to provide for future cost savings.[45]

In 1988, Congress was disappointed when DoD failed to comply, charging DoD "lacked focused management for UAV's" and "the services were pursuing programs and technologies that should be merged to avoid duplication and to ensure cost effective approaches."[46] Then Congress eliminated service-specific UAS funding which ultimately spurred DoD planning efforts.[47] Notwithstanding, when the master plan was finally submitted, it "did not reconcile service UAV requirements and eliminate duplicative programs in the near term."[48]

In an attempt to appease Congress, DoD established the UAV Joint Project Office, assigning the Navy as the lead.[49] In 1989, it was "the single DoD organization with management responsibility for UAV programs."[50] But the JPO failed to adequately oversee UAS programs and was replaced in 1993 by the Defense Airborne Reconnaissance Office (DARO),[51] "the primary management, oversight, and coordination office for all department-wide manned and unmanned reconnaissance."[52]

> DARO was also criticized for its poor management approach and slow progress fielding UAV's and was dissolved in 1998. UAS development and acquisition responsibilities were then returned to the services, while the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence was directed to provide oversight for the Secretary of Defense.[53]

A renewed effort to rein in UAS programs emerged in 2001. The Joint Unmanned Aerial Vehicles Planning Task Force was formed in the Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics. The Joint UAV Task Force then developed a UAV roadmap; however, it had no authority to enforce it. So the services continued to develop their own UAS programs.[54] This brief history, which by no means captures all the "fits and starts" of DoD management efforts, is meant to briefly illustrate the turbulent and volatile nature of managing DoD UAS since the services had coarsely similar but very diverse UAS capability requirements. Moreover, the service stakeholders were committed to retaining both the authority and flexibility to adjust those capabilities and their corresponding programs to respond to emerging opportunities and maturing operational needs.

Nevertheless, in 2005, the USAF spearheaded an effort to become the DoD EA for UAS, but the Joint Requirements Oversight Council (JROC) rejected this proposal. Instead of an EA, the JROC created a Joint UAS Center of Excellence at Creech AFB, Nevada to oversee interoperability, commonality, and standardization of UAS across the services.[55]

This issue was revisited on 5 March 2007 when the USAF Chief of Staff, Gen. T. Michael Mosely, signed a memorandum proposing the Air Force as the EA for medium- and high-altitude UAS.[56] According to this proposal, the Air Force would be responsible for development, procurement, and training of all UAS flying over 3,500 feet. The Air

Force is seeking control, i.e., direct reporting authority, over UAS program managers across all services, including the power to merge programs. With this authority, the USAF would control the entire DoD budget for UAS, which is currently $15 billion annually and growing significantly.[57] Not surprisingly, the Army, Navy, and Marines adamantly oppose designating the Air Force as the UAS EA.

The Air Force claims centralizing control and management of UAS will reduce redundancy. However, the Army and Marines are greatly concerned that the Air Force is unable to fully appreciate and will not preserve their service-specific UAS needs. They believe a centralized EA will not meet their individual service requirements, especially those requirements relating to responsiveness – that is, the availability of UAS to the solider or commander when and where it is needed. The sheer number of UAS missions alone makes this task an immense challenge to centrally manage. An additional issue is the variation in the services' training standards. For example, Army UAS operators are not required to have pilot credentials, whereas the Air Force does require pilot credentials. In the UAS case, the Marines' and Army's diverse service cultures and operational mission contexts obviate the creation of such a comprehensive and service-directed EA.

Conversely, the Air Force cites the need for increased air space management as justification for a UAS EA. They argue that as the use of UAS increases, there is clearly a need for improved and centralized air space management. However, air space management transcends the UAS domain. It involves many functional areas – including air defense, artillery, helicopters, and fixed-wing aircraft, not to mention commercial aircraft and host-nation military aircraft.

Additionally, the UAS 2005 Roadmap identified several problem areas supporting more centralized management:

> lack of standard communications frequencies and waveforms, lack of standardized sensor products, lack of standardized data for both sensors and platform information, and lack of a common tasking system that crosses the traditional command seams. . . issues concerning training, logistics support, airspace integration, and CONOPS that could benefit from greater cross-Service interoperability.[58]

A casual observer would probably describe this as a classic case of service rivalry. Lt Col Michael J. Jordon, author of *Merging the Tribes: Streamlining DOD's Acquisition of Unmanned Aerial Systems* equated these parochial service disagreements to "tribal jealousies."[59] But is this truly the case? Or are there service and mission-specific needs that would be lost if a UAS EA was designated? The exponential increase in the number of UAS and their great flexibility to support a variety of missions makes this an immense, difficult and complex area to manage.

UAS are crucial assets in all echelons of the Army (Platoon, Company, Battalion, Brigade, Division, . . .), in all types of units (Future Combat System Brigade Combat Team [BCT], Heavy BCT, Infantry BCT, Stryker BCT, Fires Brigade, Battlefield Surveillance Brigade, Combat Aviation Brigade, Combat Support [Maneuver Enhancement] Brigade, Sustainment Brigade . . .), for numerous missions (target acquisition, chemical/biological/radiological/nuclear/explosive, reconnaissance, weaponized, communications . . .). The Marine missions are quite similar to the Army's, but Marines have their own specific requirements, such as launching from and landing on ships. In contrast, the primary mission of the Air Force is carried out at the highest altitudes, covering an expansive area of operations, focusing on strategic vice

operational or tactical reconnaissance activities. Similarly, the Navy has its unique requirements, including total waterborne missions and operations in littoral areas.

UAS perform similar functions – provide sensor deployment, relay communications, attack targets, drop supplies, distribute information operations, etc. – and provide unique and diverse means to accomplish the services' missions. To capitalize on the expansive capabilities and opportunities UAS bring to the fight, DoD must ensure the services have the flexibility to optimize their use. But at the same time, UAS operations across services should be standardized to enable efficient and effective joint operations. Having a flexible DoD management structure for UAS is crucial for ensuring all of the services' distinct requirements are achievable. Moreover, as technology matures the applications for UAS will grow dynamically and likely in unexpected directions thus requiring decentralized management and maximum flexibility to identify and pursue emerging opportunities.

Predictably, the UAS EA decision was greatly influenced by political, institutional, and cultural influences. The Air Force lobbied for EA designation to gain control over both their own and potentially conflicting service programs. But the Army, Navy, and Marines resisted the initiative to prevent any loss in their own ability to influence current and future UAS program developments and outcomes.

In a 14 September 2007 memorandum, Deputy Secretary of Defense England directed several actions, but did not establish an UAS EA.[60] His guidance ranged from creating a task force and assigning the JROC to coordinate and develop UAS training and operational employment, to merging the Air Force Predator program with the Army Sky Warrior program. In the short term, and based largely on diverging and disparate

political influences, DoD has adopted a different management tool for UAS rather than an EA. But this controversy is far from resolved: billion dollar budgets are at stake; service rivalries and interests are intense; and Congressional politics are involved. Management of UAS will undoubtedly be revisited, and perhaps an EA will eventually oversee UAS.

Summary

There is no clear-cut optimal method for determining when to create an EA. In our political system, the rational-analytical decision model is used to assist in informing the decision, but frequently does not provide compelling rationale in light of political influences. Instead, decisions are made within the Polis framework.

In the first case study, creating EA was clearly the right decision. The fundamental reason is the overwhelming commonality in the mission – supplying petroleum for consumption by the armed services. However, even in this compelling case, the implementation likely needs major improvement so that the Petroleum EA can fully achieve efficiencies with greater management authority. Moreover, the Petroleum Senior Steering Group, made up of colonel-level members, must be further empowered to represent their respective organizations in the active management and resolution of petroleum-related issues. In this case, the benefits associated with an EA's centralized management have been subverted by a diluted process during which the services continue to pursue their own and, in some cases, duplicative or competing petroleum management initiatives.

In the UAS case, significant institutional and service impediments mitigated against the designation of an EA as the proposal worked its way through the Polis

model. However, these political issues were complemented by real concerns about incompatible service missions, diverse training and system requirements, constraints to operational flexibility, and high-risk and immature technology. Therefore, the designation of an UAS EA may be premature and may be instituted at the wrong level: service level vice Joint level. If many of the disparities in service programs are resolved as the service programs continue to mature into operational employment – such as commonality in sensor arrays and communication suites – a UAS EA may not be needed. However, if disparities stay at the same level or increase, UAS EA may eventually make both political and rational sense.

In the meantime, OSD and the Joint Staff should continue to focus on standardizing equipment and procedures to facilitate interoperability of UAS assets across DoD. In addition, manufacturing efficiencies can be gained if program managers procure joint contracts for common items of equipment, parts, and supplies. The interim Joint UAV Task Force should ensure that the services resolve communications, sensor and operating issues together. Involved JROC oversight, coupled with active Joint UAV Task Force involvement, can ensure that service programs remain compatible and are postured for a seamless transition to more consolidated management under a DoD EA. Correspondingly, the 14 September 2007 memorandum from Deputy Secretary of Defense England raises an immediately need for active JROC management and measures to address interoperability and efficiency issues. But the response will likely become just an intermediate step towards the eventual designation of a UAS EA. However, if an EA is eventually designated, DoD must ensure that the UAS EA is

sufficiently empowered to exercise ample management functions and controls to gain economies and efficiencies while maintaining cross-service operational effectiveness.

Conclusion

Executive agency can be an effective tool for managing DoD common activities and similar programs. Making the decision to create an EA is only the first step in instituting an effective and efficient centralized management approach. The design, implementation, and on-going execution of the EA are equally crucial for achieving a successful outcome.

In the final analysis, successful management must achieve results – mission accomplishment. The first priority should always focus on meeting user needs and requirements – but at a reasonable cost and with minimal redundancies. However, gains in efficiency achieved through consolidation at higher levels usually result in some decrease in effectiveness at lower levels. Oftentimes, there is a decrease in lower level flexibility, responsiveness, and niche capabilities. The challenge in implementing an EA is to optimize economies and efficiencies while minimizing tradeoffs in effectiveness. For military forces engaged in combat, the negative consequences of reductions in effectiveness can be profound.

Endnotes

[1]George E. Reed, "Systems Thinking and Senior Level Leadership: An Introductory Essay," in *U.S. Army War College, Selected Readings Academic Year 2008 Strategic Thinking* (Carlisle Barracks: U.S. Army War College, August 2007), 158.

[2]U.S. Department of Defense, *Department of Defense Executive Agent for Bulk Petroleum,* Department of Defense Directive 5101.10 (Washington, D.C.: U.S. Department of Defense, August 2004), 1.

[3]U.S. Department of Defense, *Department of Defense Executive Agent for Joint Urban Operations,* Department of Defense Directive 5101.5 (Washington, D.C.: U.S. Department of Defense, March 2004), 1.

[4]U.S. Department of Defense, *Department of Defense Executive Agent for Medical Materiel,* Department of Defense Directive 5101.9 (Washington, D.C.: U.S. Department of Defense, August 2004), 1.

[5]Vice Chairman of the Joint Chiefs of Staff E.P. Giambastiani, "Executive Agency for Medium and High Altitude Unmanned Aircraft Systems," memorandum for Deputy Secretary of Defense, Secretary of the Air Force, and Commander of U.S. Joint Forces Command, Washington, D.C., 16 July 2007.

[6]U.S. Department of Defense, *Department of Defense Executive Agent and Single Manager for Military Ground-Based Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (CREW) Technology,* Department of Defense Directive 5101.14 (Washington, D.C.: U.S. Department of Defense, June 2007), *1*.

[7]U.S. Department of Defense, *Department of Defense Directive Executive Agent for Space,* Department of Defense Directive 5101.2 (Washington, D.C.: U.S. Department of Defense, June 2003), 1.

[8]U.S. Department of Defense, *Department of Defense Executive Agent for Subsistence,* Department of Defense Directive 5101.10 (Washington, D.C.: U.S. Department of Defense, September 2004), 1.

[9]U.S. Department of Defense, *Department of Defense Executive Agent for the United States Central Command (USCENTCOM) Rest and Recuperation (R&R) Leave Program,* Department of Defense Directive 5101.6 (Washington, D.C.: U.S. Department of Defense, August 2004).

[10]There is no DoD wide consensus for the UAS acronym. In recent DoD literature, Unmanned Aircraft System (UAS) and Unmanned Aerial System (UAS) are used interchangeably to represent the ground control equipment, air vehicle, and any other equipment necessary to transport or operate the system. In the past Unmanned Aerial Vehicle (UAV) was used, but it did not emphasis the entire system. Throughout this paper you will see all three acronyms used interchangeably. The author prefers UAS, which is the current doctrine term, but the other two will be used based on the original source.

[11]Dan D. Jennings, III, *Petroleum Executive Agency – A Forcing Function for Jointness,* Strategy Research Project (Carlisle Barracks: U.S. Army War College, 18 March 2005), 1.

[12]U.S. Air Force, “Detailed Executive Agent (EA) Awareness Training” briefing slides, October 2002; quoted in Dan D. Jennings, III, *Petroleum Executive Agency – A Forcing Function for Jointness,* Strategy Research Project (Carlisle Barracks: U.S. Army War College, 18 March 2005) 4; available from <http://www.globalsecurity.org/military/library/report/2001/ALSOS_J4_Executive_Agency_Summary_Brief.ppt>; Internet; accessed 8 January 2005.

[13]U.S. Department of Defense, *Department of Defense Executive Agent,* Department of Defense Directive 5101.1 (Washington, D.C.: U.S. Department of Defense, September 2002).

[14]Ibid., 2.

[15]Russell Ackoff, *Ackoff's Best: His Classic Writings on Management* (New York: Wiley, 1999), 6; quoted in George E. Reed, "Systems Thinking and Senior Level Leadership: An Introductory Essay," in *U.S. Army War College, Selected Readings Academic Year 2008 Strategic Thinking* (Carlisle Barracks: U.S. Army War College, August 2007), 158.

[16]Peter M. Senge, *The Fifth Discipline: The Art & Practice of the Learning Organization* (New York: Doubleday, 1990), 73.

[17]Ibid., 75.

[18]Ibid., 71.

[19]Richard Paul and Linda Elder, *The Miniature Guide to Critical Thinking Concepts & Tools* (Dillon Beach, CA: The Foundation for Critical Thinking, 2004), 16.

[20]Jennings, 6.

[21]Herbert A. Browne. "Special Operations Offers Defensewide Lessons," *Signal 60* (May 2006), 14; [database on-line]; available from ProQuest; accessed 21 October 2007.

[22]John P. Kotter, *Leading Change* (Boston: Harvard Business School Press, 1996), 21.

[23]Deborah Stone, *Policy Paradox: The Art of Political Decision Making* (New York: Norton, 1998), 232.

[24]Stone, 255. Author's Table 1 consolidates Stones' tabular formation of "Decision Analysis Strategies of Problem Definitions."

[25]Ibid., 242.

[26]U.S. Department of Defense, *Department of Defense Executive Agent for Bulk Petroleum, 1*.

[27]Ibid.

[28]William MacLaren, Jr. , Director, Executive Agent Office, U.S. Defense Energy Support Center (DESC), interview by author, 27 November 2007.

[29]Ibid.

[30]Jennings, 1.

[31]Ibid.

[32]U.S. Department of Defense, *Department of Defense Executive Agent for Bulk Petroleum,* 2.

[33]Jennings, 5.

[34]U.S. Department of Defense, *Department of Defense Executive Agent for Bulk Petroleum,* 2.

[35]Jennings, 5.

[36]Ibid, 6.

[37]U.S. Department of Defense, *Department of Defense Directive Executive Agent for Bulk Petroleum,* 3.

[38] Maynard Sanders is also the director of DESC.

[39]Director of the Defense Energy Support Center Maynard Sanders, "Bulk Petroleum Executive Agent Requirements Generation/Information Management Program," charter for U.S. Department of Defense, Fort Belvoir, Virginia, 28 August 2007.

[40]The responsibility as listed in the *Department of Defense Bulk petroleum,* Directive 5101.8: "5.2.2. Establish and maintain an integrated management information system to support the implementation of this Directive, to include: 5.2.2.1. Bulk petroleum management information and financial accounting system in accordance with DoD Directive 5530.3 (reference (e)). 5.2.2.2. In coordination with the DoD Components, provide visibility for U.S. Government, allied, coalition, host-nation, and commercial bulk petroleum assets."

[41]Jennings, 12.

[42]Claudia "Scottie" Knott, "Defense Logistics Agency Designated Executive Agent for Critical Supply Chains," *Defense AT&L* 34 (May-June 2005): 28.

[43]MacLaren.

[44]Michael J. Jordon, *Merging the Tribes: Streamlining DOD's Acquisition of Unmanned Aerial Systems,* Strategy Research Project (Carlisle Barracks: U.S. Army War College, 15 March 2006), 7.

[45]U.S. General Accounting Office, *Unmanned Vehicles: Assessment of DOD's Unmanned Aerial Vehicle Master Plan*, (Washington, D.C.: U.S. General Accounting Office, 9 December 1988), 6.

[46]Ibid.

[47]Jordon, 7.

[48]U.S. General Accounting Office, 6.

[49]Jordon, 8.

[50]U.S. General Accounting Office, 7.

[51]Jordon, 8.

[52]U.S. General Accounting Office, 7.

[53]Jordon, 8.

[54]Ibid.

[55]Ann Roosevelt, “Pentagon Nixes Air Force as UAS Executive Agent,” *Defense Daily 54* (September 2007): 235 [database on-line]; available from ProQuest; accessed 21 October 2007.

[56]Amy Butler, “Power Play: USAF Continues Push to Control Pentagon's Unmanned Systems: USAF Refines Plans to Control UASs Despite Sister Services' Resistance,” *Aviation Week & Space Technology* 167 (August 2007): 6 [database on-line]; available from ProQuest; accessed 11 September 2007.

[57]Ibid.

[58]U.S. Under Secretary of Defense (Intelligence) Stephen A. Cambone, "Unmanned Aircraft Systems (UAS) Road Map, 2005-2030," memorandum for Secretaries of the Military Departments, Chiefs of the Military Services, Washington, D.C., 20 July 2005, 45.

[59]Jordon, 1.

[60]U.S. Deputy Secretary of Defense Gordon England, "DoD Programs for Unmanned Aircraft Systems," memorandum for Chairman of the Joint Chiefs of Staff, Vice Chairman of the Joint Chiefs of Staff, and Chiefs of the Military Services, Washington, D.C., 13 June 2007.